Nothing is Hidden: Contextualism and the Grammar-Meaning Interface

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Abstract: A defining assumption in the debate on contextual influences on truth-conditional content is that such content is often incompletely determined by what is specified in linguistic form. The debate then turns on whether this is evidence for positing a more richly articulated logical form or else a pragmatic process of free enrichment that posits truly unarticulated constituents that are unspecified in linguistic form. Questioning this focus on semantics and pragmatics, this article focuses on the independent grammatical dimensions of the problem. Against the background of a principled account of the different ways in which the lexicon and the grammar, respectively, determine aspects of propositional meaning, and an uncontentious notion of content, nothing turns out to be 'missing' in grammatical expressions in order for them to encode complete propositional thoughts. As this predicts, when putatively hidden constituents are made overt or are otherwise added, propositions result that are systematically different from the thoughts originally expressed. Context, while potentially affecting lexically specified aspects of meaning, never affects grammar-determined ones, suggesting a specific role for grammar in the normal cognitive mode.

1. Introduction

A defining assumption in the recent debate on the influences of extra-linguistic context on the truth-conditional content of utterances is that this content is often incompletely determined by what is overtly specified in linguistic form. The claim is, for example, that while a speaker may say 'John has arrived', the proposition expressed really is that John has arrived in Paris; or when she comments: 'Nice shirt!', which lacks a propositional form, there is in fact a proposition expressed, namely that the addressee is wearing a nice shirt. The sentences *John arrived in Paris* and *You are wearing a nice shirt* would thus be more appropriate representations of the thoughts conveyed, implying an apparent 'misalignment' between language (as overtly used) and the thought or the proposition expressed. Put differently, the form-meaning interface is not 'strict'. The debate then turns on whether this misalignment is evidence for positing a more richly articulated logical form for the expression involved, so as to restore syntax-semantics alignment (Stanley, 2000;

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2002; 2005; King and Stanley, 2005; Marti, 2006), or else for a pragmatic process of 'free enrichment' that makes the propositional content in question complete by adding constituents that are truly 'unarticulated' in linguistic form, whether overtly or covertly (Carston, 2002; Récanati, 2004; Sperber and Wilson, 1986/1995; Hall, 2008). Here I will question the need for either strategy.

The former strategy, which I will call 'semantic', enriches linguistic form in such a way that the intrusion of linguistic context is kept at bay: truth-conditional meaning is then entirely controlled by linguistic form, and the role of context is restricted to the supply of values for hidden variables represented therein. The 'pragmatic' strategy by contrast allows context to be more intrusive: a non-linguistically licensed process supplies constituents of content that are nowhere to be found in linguistic form. Both of these approaches face considerable methodological challenges, which have not yet found widely accepted solutions. The pragmatist solution confronts the 'over-generation' challenge (Stanley, 2002; Sennet, 2011), which consists in specifying a principled restriction for which propositional contents a pragmatic process of enrichment—being 'free' of linguistic specifications—could (and could not) generate. However, as Hall (2008, pp. 431–2) has recently argued, the semantic approach does not escape from this problem either. If apparent quantifier domain restrictions, for example, are handled by hidden indexicals in logical form, which restrict the denotation of a given predicate to a given context, readings are predicted to occur that need not exist, as when indefinites *lack* a domain restriction. Also, as Hall (2008, p. 429) points out, insofar as the argument here goes *from* observed truth conditional effects *to* hidden structure posited in logical form, *independent linguistic* evidence for the existence of the hidden variables in question is required to support the semantic strategy. The notion of 'logical form' needs to be *non-semantically* constrained as well as semantically, through independent considerations of the form-meaning interface. Otherwise, the semantic strategy makes no empirical predictions for where and whether context impacts on truth conditional content, irrespective of linguistic form.

To illustrate this methodological problem, consider the claim that the utterance 'It's raining' can sometimes have the 'indefinite existential' interpretation ('it is raining somewhere'), and that the utterance 'He is eating' can have a 'specific' reading (e.g. 'He is eating these poisonous mushrooms')—facts that have been taken to support the pragmatist strategy (Récanati, 2002, pp. 315–7; 2007, p. 125). Marti (2006, pp. 154–6) disputes both claims on empirical grounds, arguing that none of these are readings of the respective sentences, licensed by linguistic form. This claim is right or wrong (right, on the present account), but semantics jointly with pragmatics cannot settle the dispute. Claims about *readings* are claims about the form-meaning *interface*, and claims about logical form in particular require independent *syntactic* support. As Huang (1995, p. 130) points out, semantics can, as such, never provide sufficient evidence for any empirical hypothesis about logical form, for if one believed in the correctness of a certain semantic representation, one could always map the sentence uttered to this semantic representation directly, *without* any detour through a level of logical form, which now becomes redundant. If such a level *is* assumed, independent

syntactic evidence is therefore needed. As Lasnik (2000, p. 186) points out, although LF (Logical Form) 'sounds like it's semantics, it's syntax'.[1]

Such evidence is available where hidden constituents *are* currently posited in linguistic theory, such as the omitted subject-argument of *win* in a control construction like *John wants to win the race*, where this argument necessarily co-refers with *John* (who wants *himself* to win), or the trace of the *wh*-expression *who* in *I wonder who John wants to win the race*, where the subject of *win* crucially need not be John. In such cases general principles of syntactic computation and movement explain the semantic facts in question (cf. Hornstein, 2001, pp. 39–40), and the hidden constituents, if present, are obligatorily present in the syntax, even if deleted in phonological form, and they interact with a number of independent grammatical principles such as Case or the EPP (Extended Projection Principle). This is not so for the hidden constituents posited in the present debate, where constituents lack motivation in established general principles of linguistic computation.[2] Stanley's (2000) arguments from syntactic binding would therefore have been methodologically crucial, tipping the balance in favour of what I call the semantic view—were it not for the fact that, (i) from a syntactic viewpoint, they are weak and under-articulated (Collins, 2007, pp. 829–43), and (ii) the pragmatist can account for the exact same binding phenomena without detouring through a linguistic level of logical form (e.g. through semantic representations generated at the level of the 'Language of Thought': cf. Hall, 2008, p. 430).[3]

As things stand, the pragmatist claims to win the debate since 'leaving more responsibility to pragmatics makes for a simpler, more elegant, and thus preferable,

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[1] As Collins (2007, p. 833) suggests, there is a 'silent assumption' by Stanley (in his 2000 and 2005) to the effect 'that the nature of syntax should be read off our stable semantic intuitions'.

[2] From this point of view, Stanley's (2000) and Marti's (2006) 'logical forms', in which 'function-variable complexes' are said to appear, come close to a category mistake, as semantic and syntactic notions are intermingled in the same representations (e.g. the 'variadic functions' like 'f_3', or '$g_7((f_6)i_1$' of Marti's examples (16–19), which have an essentially semantic motivation), and no evidence *independent* of the semantics assumed by these authors is provided. The notion of a 'hidden variable' is a logical, not a grammatical notion to start with, and 'LF' itself may not be a grammatical concept (cf. Chomsky, 2004, p. 152: 'LF doesn't exist').

[3] To illustrate, *Every time John lights a cigarette, it rains*, according to Stanley (2000, pp. 415–6), has a 'natural interpretation' that involves binding into a hidden 'location variable' ('Every time John lights a cigarette, it rains at the time and location where the cigarette is lit'). But independent syntactic evidence is required to support this claim, a problem worsened if binding is non-syntactic (cf. Reuland, 2011, p. 383). Even if the above interpretation *is* a reading, it is not *unique*, which means that a form of *optionality* with regard to the presence of 'hidden variables' in logical forms is introduced: the possibility remains that the only proposition encoded is one in which nothing is specifically *said* about the location of the rain in relation to that of the lighting, which would explain why the sentence *can* be used in a context in which there is *no* co-variation between the location of the rain and the lighting. Finally, even if there were relevant evidence for the reading in question and for a location variable bound, this would be no evidence for the existence of such a variable in *It rains*, which is a different sentence. On related problems for an alleged binding 'at LF' into the quantified object in *Every student answered every question*, see Collins, 2007, pp. 827 ff.

syntax and semantics' (Hall, 2008, p. 433). Surely, however, the proposal that 'all truth-conditional effects of extra-linguistic context can be traced to logical form' (Stanley, 2000, p. 391) also has a claim to be the most principled and lean account. Syntax, therefore, has to enter in this stalemate: semantics and pragmatics, by themselves, cannot decide the dispute. A clear task emerges: a principled and independent account is needed of the extent and the way in which meaning is controlled by linguistic form, and more specifically, of how the lexicon and the grammar, respectively, impact on truth-conditional content.[4] This is a question about what their respective contributions to meaning are, and hence the *interface* that grammar forms with extra-linguistic systems (cf. Reuland, 2011; Reinhart, 2006).

I will sketch just such an account in Section 3. In Section 4 I turn to a detailed discussion of a first putative case of a 'mismatch' between what is specified overtly in linguistic form and what thought is expressed: temporal predicates. Evidence that such predicates can be 'missing', while being required for propositional meaning, turns out to be weak. Once grammatical and lexical ways of fixating temporal reference are carefully distinguished, as I argue in Section 5, grammar and content turn out to perfectly align. Section 6 repeats the same argument for putative location variables. In Section 7 I turn to definite descriptions, whose referential use has classically been taken to illustrate a disparity between aspects of semantics determined by linguistic form and aspects added by pragmatics. Syntactic evidence suggests that the relevant effects are in fact what we would *predict* on grammatical grounds. I also touch upon cases of 'deferred' reference and of 'sub-sentential' speech. Section 8 concludes that when the data are looked at more carefully, prospects for an explanatory grammatical account of propositional meaning look promising indeed.[5] Before starting on this agenda, I will, in the next section, clarify the methodology of this article and the notion of 'content' used.

2. On the Notion of 'Propositional Content'

The notion of 'proposition' is a technical one coming from a logical-philosophical tradition. Hence it is not as such an empirical one—clearly it is not a *grammatical* one, going back to a time long before the modern linguistic study of language as

[4] This is to assume that human language, as compared with any other known communication system in nature, is characterized by two main principles: *lexical* organization, which may or may not be missing in the thought and communication of other species, and *grammatical* organization, which is arguably absent in all species but ours, including the communications of the so-called 'language-trained' apes, which Tomasello (2008, p. 249) argues 'contain basically no relational or grammatical structuring of any kind'. Clearly this raises important questions about the *cognitive function of grammar* in humans.

[5] Much less grim, in particular, than suggested in Collins (2007), who argues against a syntactic reduction of propositions and unlike me does not dispute the relevant under-determination data, while disputing Stanley's (2000, 2005) syntax for them.

a natural object even emerged. At the same time, it may turn out to *map* onto empirical grammatical realities in interesting ways. In order for this matter to be investigated, it is clear, as one anonymous referee notes, that the notion in question cannot be *defined* in linguistic terms. Alignment in the above sense must come as a *discovery*: a study of alleged misalignments needs to *reveal* the alignment of a given content with the grammar that we independently find, starting from notions of proposition or content that are *standard* ones, rather than purpose-built to reach this very conclusion. Moreover, this article needs to address the very intuitions about content that we find in the contextualism debate, and then investigate the role of grammar in their fixation. That said, such claims about content can as such also be *wrong*: we need to allow for both kinds of result, and we will find instances of either below.

Accordingly, this article will adopt a *standard* base notion of 'the proposition expressed', which is prior to more specific technical notions that a number of research paradigms have identified and motivated. This is to take this notion to answer to intuitions about 'what is said' in a given utterance, as distinct from notions of what is 'conveyed' or what a speaker 'succeeds to communicate'; it is to take such propositions to form the contents of propositional attitudes; and to take them to be 'complete' in the sense that a truth-value can be attached to them in a context of use. It is generally agreed in the present debate (e.g. Récanati, 2004, p. 6) that this notion of content is at least *constrained* by linguistic form, in a way that implicatures are not: the dispute is over the *extent* to which this is the case.

The claim here will be that modulo potential contextual influences on the *lexical* specifications of utterances (a domain where grammar is not in control), the grammar of these utterances not merely constrains but in fact *fully determines* the propositions expressed (if any), without enrichments by further elements when these are not independently grammatically licensed. This result will be established by looking at specific cases of putative grammar-meaning misalignment one by one and arguing empirically and inductively for each case that: (i) propositional contents in the above sense are in fact available that (ii) align with the grammar that we see, in a way that (iii) crucial aspects of their content are directly predicted from the grammar involved, while (iv) the putative 'enriched' contents are systematically more plausibly construed as the contents of linguistically different expressions uttered in different circumstances.

It is worth contrasting this methodology with another, which begins from more technical notions of what propositions are. Thus consider the notion of 'minimal proposition', which is expressly defined to be as close as possible to that of 'sentence meaning' and at least in part demarcated by linguistic criteria (cf. Récanati, 2004, p. 7: 'the distance between sentence meaning and what is said is kept to a minimum'). Where linguistic specifications seemingly result in what is intuited to be an incomplete proposition, the minimalist proceeds by adding whatever non-linguistic material has to be supplied by context, until the minimal proposition is reached. Such a maxim is *not* endorsed here, and we will find reasons to challenge the empirical

reality of 'minimal propositions', as much as Récanati's pragmatically enriched alternative to them, which he claims cohere better with intuitions regarding 'what is said'.

To illustrate, the utterance 'I've had breakfast' is said to express the minimal complete proposition that the speaker has had breakfast before the time of utterance, i.e. that 'the speaker's life was not entirely breakfastless' (ibid., p. 8); 'Everybody went to Paris', that every existing person went to Paris (p. 10); and 'The table is covered with books', that there is one and only one table and it is covered with books. None of these propositions appear particularly intuitive as candidates for 'what is said', and Récanati suggests to dispense with them in favour of pragmatically appropriately enriched propositions (e.g. in the first case, that the speaker has had breakfast *on that morning*). By contrast to such examples, 'John's book' is said to express *no* minimal proposition at all, unless a particular relation is specified to hold between John and the book (pp. 7, 62, 65); 'burglar nightmare', too, is translated into the notion of 'a nightmare that bears a certain relation *R* to burglars', with R, a 'free variable', waiting to be lexically specified; and again, 'finished the book' is said to require a specification of some particular action taken in relation to the book (reading, burning, etc.).

However, 'John's book' *has* a grammatical relation specified as holding between 'John' and 'book'—that of possession, which is grammaticalized across languages—and it requires evidence that *another*, lexical one substituting for '*R*' is needed, i.e. that any other constituent figures in a thought expressed by this phrase on an occasion of use (though there could of course be background assumptions of the speaker or hearer on what the relation is). The same applies to 'burglar nightmare', which yields either the interpretation 'nightmare to do with (a) burglar(s)' or 'nightmare of a burglar', depending on which grammatical relations are disambiguated to hold in this string (the first noun can either be a modifier or a thematic argument of the head noun). And while there is some psycholinguistic and neurolinguistics evidence that a normal speaker will project a VP into the phrase 'finished the book', yielding 'finished V-ing the book', it is much less clear that a full *lexical* verb is projected in this instance (e.g. reading, destroying, etc.) (cf. Pylkkänen *et al.*, 2011, and Hinzen and Poeppel, 2012). As for the expressions claimed to be propositionally complete but psychologically implausible, a speaker saying 'I've had breakfast' says nothing about breakfasts eaten over the stretch of a lifetime—and neither does the linguistic form of his utterance suggest so. Similarly, saying 'Everybody went to Paris' is not at all to say that *everybody alive* went to Paris: the phrase is *everybody*, not *everybody alive* or *existing*, and the claim is simply about whoever counts as 'somebody' in the context of utterance. Sections 4–6 will argue that, *pace* Récanati, psychologically plausible contents *are* in fact fully determined by the grammatical specifications of these utterances, as and when they take place (see also fn. 23). As for 'The table is covered with books', no numerical quantifier is involved in the grammar in this sentence either (see Section 7).

Maybe, then, some expressions are in fact *more complete* than appears initially, while others are also complete but have contents *different* from the ones claimed for them by either the minimalist *or* the pragmatist. The discussion now proceeds at an empirical level, and grammar-meaning alignment becomes an open issue, as

it should be. Moreover, as a ground rule for all parties concerned, it is *deviations* from the null hypothesis—that what's not there is not there, because it's not required—which must be empirically motivated. Similar observations as the ones applying to the notion of 'minimal proposition' above apply to the notion of 'what is literally expressed'. Thus 'John has three children' is said to standardly express 'literally' that John has at least three children—while the only proposition that the speaker is said to be 'conscious of expressing' is that John has exactly three children (Récanati, 2004, p. 11). Yet that John has three children, that he has at least three, and that he has exactly three, are three distinct propositional claims to make, made in distinct circumstances, and they are distinct thoughts to have. The two latter claims moreover both asymmetrically entail the first, a fact explained by the other fact that they both contain a modifier in front of the numeral, which like adjuncts in general can be dropped without truth turning into falsehood (see Sections 4 and 6).

The result of our methodology will not be a *new* technical notion of proposition either, but motivation for a novel *heuristic hypothesis*: that grammatically complete expressions might as such be both propositionally complete *and* psychologically plausible—unlike 'minimal' and also so-called 'reflexive' propositions (cf. Récanati, 2004, p. 4), while at the same time failing to be pragmatically determined. Ultimately, the 'labour' of configuring semantic interpretations will be divided between the grammar and interpretive systems on the 'other' (non-linguistic) side of the semantic interface (Reuland, 2011). Yet, configuring propositional meaning as such may not be. In the spirit of Reinhart (2006), post-grammatical semantic systems might be incapable of 'sneaking in' (Reuland, 2011, pp. 391–2) propositional interpretations that the grammar has ruled out, hence moving within the latter's constraints, powerless to *make* propositional what grammatically is not, short of substituting the expression involved. There could, then, still be 'semantic underdeterminacy' in Récanati's sense at a lexical level, while it is at the grammatical one where a line between content and context is drawn. Support for this perspective comes from independent evidence discussed in the next section, that linguistic content falls into two distinct *kinds*: one lexical and one grammatical:[6] forms of *reference*, it turns out, belong to the latter: they are never lexical, depend on grammar for their existence, co-vary with grammar, and do not change with context.

3. Lexical and Grammatical Determinants of Propositional Meaning

Some aspects of the meaning of a sentence are governed by its *grammar*, others by its *lexical* specifications. Whatever the right definition of 'word', it is sufficiently clear

[6] Récanati's discussion (2004, sec. 4.3) crucially omits this distinction. Thus he claims (p. 58) that there is such underdeterminacy at a 'constructional' (i.e. grammatical) level as well, as in 'red pen'. However, this phrase could never denote, say, a red patch that also happens to be a pen—a violation of grammatical meaning (due to headedness). The underdeterminacy described by Recanati is entirely lexical.

for my purposes that while 'man' is a lexical item, 'the man' is not. It is also clear that the meanings that these two items respectively carry are fundamentally different in kind: 'man', qua lexical item, we may assume, denotes a 'concept', which we will denote by MAN, following standard capitalization conventions. That concept clearly has a substantive content—different, say, from WOMAN. Its lexical entry may determine further factors (depending on one's view of the lexicon) such as that MAN is a hyponym of ANIMAL or comes with the semantic feature BIPEDAL. Yet no lexical item will ever as such determine whether 'man' will be used to refer a specific man, any man, the property of being a man, men in general, some men, manhood, or mankind. For any of this to happen, 'man' has to occur within a grammatical *phrase*, which in turn has to occur in the right grammatical *relations*. For example, 'the man' can be used to *refer* to a particular man, where it occurs in positions such as 'The man I met this morning returned' or 'Give the man over there a dollar', while neither the word 'man' nor the concept MAN, *as such*, can do such a thing. Since 'man' is a lexical item, while 'the man' is not, grammar and lexicon correlate with meanings of different kinds: grammar supports forms of *reference*, which the substantive lexicon as such does not. This is even more obvious for the forms of reference that become available only at the level of sentences, which can be used to refer to a fact or truth, which no lexical item can.

To illustrate standard forms of co-variation between grammar and forms of reference, consider that in (1), 'a man' encodes a description denoting a property that Jenny is said to desire to satisfy:

(1) Jenny would like to be [a man].

By contrast, in (2), 'a man' is used to refer to a particular man:

(2) [A man] entered the room.

The option to credit this difference to a lexical ambiguity in the word 'a' is questioned by the fact that the grammar of the occurrence of the phrase in question co-varies with the difference of use: 'a man' functions as a sentential *predicate* (or perhaps part of such a predicate) in (1), which as such encodes a property attributed to Jenny (something she would like to be); but the same phrase in (2) is in subject position, which is a grammatically referential rather than predicative position, unless it interacts with other grammatical factors as in the case of generics:

(3) [A man] loves all of his children.

Here, 'a man' generically refers to any instances of the kind 'man', and grammatical Tense cannot then be PAST. The differences between these three uses seem to have nothing to do with the lexical items 'a' or 'man', which are present in all of these cases; nor can it intrinsically relate to what the phrase 'a man' means by itself, which is again identically present in all cases. Rather, once we know what 'a' and 'man' mean in English, we have to wait for grammar to determine whether 'a man' is used predicatively, referentially, or generically, in the senses above, which depends on the

grammatical configuration in which this phrase occurs. Similar such co-variation of referential or non-referential uses is seen with 'the', and the observations above thus do not seem to relate to idiosyncrasies in the lexical specifications of 'a'.

The lexicon, then, rules certain aspects of the meaning of the sentences we utter, while the grammar rules others; and these two aspects are fundamentally different in kind. Indeed, that the grammar does something that the lexicon never does is confirmed when we observe the lexical item 'man' occurring without a determiner. Consider the difference in (4) and (5):

(4) [Man] comes from Africa.
(5) He ate [man].

In (4), 'man' is used to refer to a natural kind. (5), by contrast, while also having the marginal reading that this whole kind was eaten, would normally mean that some unspecified amount of man-meat was eaten (cf. *He ate beef* or *He had duck*), presumably by a cannibal. (4) doesn't have this reading, and involves no mass-quantification. Again, this has evidently nothing to do with the lexical meaning of 'man'. It has to do with the grammatical position of 'man' in the phrase in which it occurs, and the grammatical position of that phrase: its occurrence as subject of a particular kind of predication or as part of the predicate. In (5), the lexical item arguably occurs as the complement of a lexically empty determiner, while in (4) it is not, being in the position of that determiner instead (Longobardi, 1994, 2005).[7]

In sum, a lexical item such as 'man' has a certain lexical meaning or content, which the grammar has nothing to do with. And then it has various *uses*, which the grammar of its occurrences in such uses governs. In these uses, it can happen that the lexical item in question is used non-referentially (i.e. predicatively) (cf. (1)), referentially specifically (2), generically (3), kind-referring (4), or mass-denoting (5) (among other possibilities). Grammar governs *referential acts* such as these in which lexical items are involved, whereas the lexicon only governs lexical (conceptual) content, which as such has nothing to do with the possible ways in which a given lexical item can end up being used to refer on an occasion.[8]

[7] While the cross-linguistic facts are complex, as noted by a referee, the hypothesis noted in the text explains why '{Apples are/man is} good for you' is both grammatical and requires the absence of the determiner, with a kind reading; and why in English, 'I love good wine' has no existential reading, and the determiner is obligatorily absent with the kind reading, while in Italian, where N-to-D movement is parameterized to be obligatorily overt, the same reading requires the (expletive) determiner. For extensive discussion of these aspects of the grammar of reference, see Longobardi, 1994, p. 631; Sheehan and Hinzen, 2011; Hinzen and Sheehan, 2013).

[8] This observation coheres with two mutually correlated facts: Firstly, while forms of 'functional reference' are pervasive in non-human animals, referential uses of words as illustrated in the present section (let alone the use of symbols to encode propositions) are absent in any non-human communication systems (Fitch, 2005, pp. 205, 212). Secondly, as noted, grammar is essentially absent in any such communication system as well.

One might hope that this division of labour between the lexicon and the grammar exhausts factors involved in the determination of propositional meaning. But the consensus on which the contextualism debate rests is of course that this is not the case: *context* is taken to enter in this determination as well. However, the above already seems to suggest that context is in fact *powerless* to influence what we have identified as the realm of 'grammatical' meaning: thus, suppose Jenny wants to be a particular man, such as Obama. Then (1) could not be used to express this proposition (notwithstanding that, if she wanted to be Obama, (1) would be true too). Nor does any context have the power to turn Jenny into the predicate of this sentence. In turn, no context can make 'a man' as occurring in (2) refer to a property, as it does in (1). Neither can any context make 'a man' as occurring in (3) refer to a particular man. And even if some amount of man-meat was shipped from Africa, (4) could not be used to express this fact. It appears, therefore, that grammatically induced aspects of meaning are non-negotiable. By sharply delimiting what context can do, it thus also *defines what context is*, the very notion of which depends for its coherence on something that is *not* context.

Yet, although it is the case that once grammar 'rules', as it were, it cannot be tampered with, the contextualist could still be right that context induces mappings from given expressed propositions to *other* propositions, independently of what is specified in linguistic form, or even mappings from *sub*-propositional structures to propositional ones. There could, e.g., be a non-linguistic level of 'structured propositions' (King, 2007) or 'thoughts' (Fodor, 2001), where things become complete, or different. The prediction to test in the context of the contextualist claim, then, is (6), though by now we also predict (7):

(6) Prediction A: Meaning as determined at non-linguistic levels of representation can *enrich* propositional meaning as configured by grammar, and may even have to do so in order to *make* it propositional.
(7) Prediction B: But such enrichment can never *conflict* with linguistic meaning insofar as it is grammatically determined in the sense above (e.g. it might be restricted to make an already given proposition more specific).

If both predictions hold, then, if and where enrichment happens, it should engender a relation of (monotonic) semantic entailment holding between the meaning determined after enrichment and the one before. I will here conclude from a review of relevant cases that (7) certainly holds: enrichment never *conflicts* with propositional meaning as determined when grammar and lexicon are in place, while lexical meaning is less stable and unprotected from contextual influence. But in fact, enrichment doesn't really happen (contra A): Where independent grammatical evidence does not support hidden constituents commonly posited at some level of 'logical form', they are also not there, with no under-determination or incompleteness resulting.

4. Temporal predicates

Our first case study concerns temporal predicates. Fodor (2001) argues that when I am being asked for the time, and answer (8), the content of this sentence, taken by Fodor to be the same as the 'thought' expressed, is not what the sentence explicitly specifies in its internal lexical and grammatical structure. It is better represented through (9), another sentence, which contains elements that are said to be 'inexplicit' in (8), and which is effectively 'abbreviated' in (8) (Fodor, 2001, p. 12):

(8) It's 3 o'clock.
(9) It's 3 o'clock here and now, in the afternoon.

This illustrates a misalignment between language and thought: (9) is both lexically and grammatically different from (8), given constituents in the latter that do not show up in the former, yet are argued to be compositional determinants of the content of (8). Language thus combines lexical items grammatically to convey a thought that would be, from a semantic point of view, better represented by another such combination, namely (9). If so, Prediction A would be vindicated: there is enrichment, over and above what is specified lexically or grammatically, and it is needed to get to the propositional meaning. At the same time, nothing in this case could be taken to refute Prediction B: there is evidently no *conflict* between (8) and (9), since any situation in which it's specifically true that it's 3 o'clock here and now, and in the afternoon, could also be less specifically and less informatively, but equally truly, be described as a situation in which it's 3 o'clock. *More* information entails *less*, while the opposite does not hold: a situation in which it's 3 o'clock is not necessarily one in which it's 3 PM—nor need it be one in which it's 3 o'clock in the time and/or location of the utterance.[9] I will return to this below. The more pressing question for now is: Does (9) *really*—either in some or in all uses—provide a more accurate representation of the 'thought' expressed in (8) than (8) itself, and

[9] With negation, this reverses: if it's not 3 o'clock, it's also not 3 o'clock in the afternoon. Also, while an utterance of 'it's 3 o'clock in Vienna' entails 'it's 3 o'clock', an utterance of 'every beer in the house is warm' does not entail 'every beer is warm'. Why? The reason is grammatical: in the former pair, the PP is adjoined to a whole sentence. As argued in the text, when we assert a sentence, and the sentence is true, then adding an adjunct PP will not make it false. But in the latter pair, the PP is adjoined to the NP: $[_{QP}$ every $[_{NP}$ beer $[_{PP}$ in the house]]], *before* the quantification is fixed. At this lexical level, it will hold by grammatical necessity that $[_{NP}$ beer $[_{PP}$ in the house]] entails $[_{NP}$ beer], and quantification over the former will be quantification over the latter: beer that's in the house is beer, exactly as '3 o'clock in Vienna' entails '3 o'clock'. It doesn't follow that if every beer in the house is warm, every beer is warm, since $[_{QP}$ every beer] is not a constituent to which $[_{PP}$ in the house] is adjoined. How in turn can an utterance in context of 'every beer is warm' convey 'every beer in the house is warm' (Stanley and Szabó, 2010)? Because *lexical* specifications, unlike grammar, are context-sensitive: there is no context in which *three dogs* can be grammatically used to denote dog-meat, say, yet what relevantly counts as 'beer' in one context is not the same as what counts as such in another. Lexical meaning is *not* grammatically controlled, and if grammatical meaning is non-contextual, we precisely predict that lexical meaning will be context-sensitive.

is (8), as it stands, truth-conditionally 'incomplete'? Or could the thought expressed in an utterance of (8) perhaps *be* exactly the meaning of (8) insofar as that meaning is determined by the lexical specifications and grammar of (8), which then together are complete, propositional, and accurate?

The question is meant to be empirical and psychological: did the thought expressed by the speaker who used (8) have the constituents specified in (9), or not?[10] Unfortunately, a rigorous methodology for deciding this question simply does not exist, given the evident difficulty of investigating thought in non-linguistic terms, especially where we start from a categorical thought-language *distinction*, as in Fodor (see Hinzen, 2013, for a different approach). Facts that all relevant parties agree with are that (8) *may* be sincerely and truthfully uttered by a person who does not know (or care) whether it is morning or afternoon, and who intends to express exactly and only what (8) states; and that such a person *can* utter (8) located in Hong Kong talking to a person in London, not knowing that this second person is in London, in which case this second person would be ill-advised to draw rash inferences on where it is said to be 3 o'clock at the time of utterance. In this case, the second person *can* relatively safely conclude, both that it is 3 o'clock somewhere, and that it is that time at the location of the *utterance*, whatever that location was.

That it is 3 o'clock at the time and location of the utterance, no more and no less, is a fine proposition for (8) to express, and is an important fact to note. Nonetheless, it is of course equally true that two people talking in the same place face-to-face and in a normal state of mind will often, if not typically, after hearing (8), assent to (9) when so prompted. Yet in light of other possible scenarios like those just rehearsed, this statistical fact proves not to necessarily capture anything *intrinsic* to the content of (8). The claim we are investigating, moreover, is not a statistical one but, again, a psychological one: it concerns constituents involved in a particular thought, as and when a particular utterance takes place. It will *always* be true that as utterances are produced in contexts, hearers or third parties using practical reasoning can inferentially extract further information from such acts, and that the speakers concerned would also often give their assent to the conclusions reached in many such inferences, when so prompted. This does not necessarily bear on what concepts and constituents their thoughts contained, especially when, crucially, there *is* a candidate content intrinsic to (8), expressed in virtue of its grammatical form, which *can* be a complete thought. The contention that there is no such content, or that sometimes there is and sometimes there is not, with constituent structure changing from context to context, should not be endorsed lightly, when there is another and perhaps more appealing theoretical alternative, which may be both in line with the empirical facts and be of foundational significance: that for any grammatical form, there is a fully

[10] But the question is not *phenomenological*, on my view (see Gross, 2001, ch. 1). That said, the fact that first-person reports and intuitions do not, as far as my inquiries and introspections go, support the idea of having the thought identified in (9) when uttering (8), should not be ignored either.

determined thought content that is expressed in a speaker's production of it, fixed irrespective of further inferences that may then also be drawn without the help of grammar.

In sentences, the constituents are empirically there for us to inspect, and linguists have done so with their tools of trade for millennia. For 'thoughts', which are explicitly taken to *diverge* from sentences in Fodor's discussion, this is precisely not so. This raises questions for the *methodology* of attempting to track the structures of 'thoughts', via intuitions about truth conditions alone. The existence of such intuitions cannot be solely decisive for the constituent structure of the thoughts concerned, when the source of these intuitions is precisely in question and none of the parties involved disagrees with their existence.[11] We need an *independent* measure of content (independent of the truth value judgements themselves).

One could offer the suggestion that if and when there is an *intention* to convey the proposition (9) upon uttering (8), (8) is incomplete. But then this needs to be more than a post-hoc rationalization of the data: we cannot conclude, after hearing (8) in a relevant context, that (9) is what the speaker 'must have intended'. People don't always say or think what, by some philosophers' standards, is deemed rational for them to have said or thought. So we would rather need independent access to the speaker's intentions, in order to then conclude that (9) really represents the content of (8). But how can we do this without using what he ends up *saying* as a basis? Even if the speaker assents to having 'intended' (9) after uttering (8), it does not follow that his *thought expressed* must have been the one encoded in (9). Independently of that point, communicative intentions, quite simply, are not what our inquiry is about.

To repeat, we cannot say that (8) is in and of itself incomplete: the thought that it's 3 o'clock, with nothing said or thought about mornings or afternoons, is, as such, a perfectly fine thought to have and convey, and it is a necessary part of the proposition expressed in (9), which entails it. It is also a perfect thing to know, though some may not find it as informative as they would wish. Consistent with this, there is no difference in *grammaticality* between (8) and (9): both are perfectly grammatical sentences which can stand on their own, and none is 'incomplete' or 'inexplicit' in any *grammatical* sense, a fact to which neither the semanticist and pragmatist gives much credit, but which we shouldn't dismiss as an accident. Indeed, as we would expect from this pattern of grammaticality, the additional constituents in (9) function grammatically as *adjuncts*: as optional elements that can be dropped without any effect on grammaticality, as the grammaticality of (8) proves. Given that these elements can be freely dropped from (9), it would be very strange indeed for them to be *obligatorily present* in (8)—i.e. to be essential elements in any thought encoded in it. The suggestion that hidden variables can be *optionally* added (Marti, 2006) in 'logical form' is equally surprising from a grammatical point of view, as noted in fn.

[11] The methodological problem is not helped by a focus on the question of the thoughts expressed by 'sentences', when it is *thoughts produced in utterances* that we are interested in, as potentially distinct from thoughts reconstructed in comprehension.

3. What is optional is, by definition, not required for grammaticality, and it is what cannot be predicted on the basis of general rules. Precisely because such material cannot be so predicted, we expect that, if present, it would have to be made *overt*.[12] We would further expect that, when we make the putative missing constituents in (8) explicit, as in (9), a different and more specific thought is the result. This prediction is confirmed by the independent fact that (9) has different uses from (8), in particular a contrastive one, and is not felicitous whenever (8) is, as I will discuss in more detail in the next section. This difference is not merely a pragmatic one, moreover, since apart from having different truth conditions, there is an asymmetric entailment relation between them, which can be purely grammatically explained on general grounds: dropping adjuncts in a grammatical expression will never turn it from a true into a false one (though see fn. 9).

I conclude from what we have said so far that it is not likely that the thought expressed in (8) either may or must leave to context or pragmatics what (9) makes formally explicit. Its content may well be different in principle from that of (9) and complete, though it will invite further inferences of different kinds depending on context. Maybe it simply doesn't *contain* the additional constituents in question, explaining a change in meaning when they are added. The next section will seek to more systematically support this conclusion and further explain why the difference between them is never merely pragmatic and instead systematically predicted from their differences in grammar. I will offer a diagnosis of what exactly *makes* the thought expressed in (8) different from the one expressed in (9), though the claim is that both are complete as well as propositional. For now it remains at least an *option*, and indeed an attractive one, that the thought expressed in (8) is, in fact, exactly the one that (8) fully specifies in its lexical and grammatical structure: stronger evidence than we have seen so far is needed to diverge from this best-case scenario: grammar-meaning *alignment*. This preliminary conclusion speaks against the semanticist's contention that hidden constituents exist in (8) at some level of 'logical form', but against the pragmatist as well, insofar as the latter maintains that contexts exist in which unarticulated constituents may need to be contributed to (8), viewed as incomplete in propositional meaning without them.

[12] This is exactly why we also expect, in a verb like *eat*, which determines two arguments in its argument-structure, that when the internal argument (Theme) is dropped phonologically, no change in interpretation will result: the argument is still understood to be present and since it is not named, it is existentially quantified. This expectation accords with the facts, and explains why Marti (2006) is right in stating that *eat* as used in *John eats* is 'always interpreted existentially' (p. 156). But she is wrong to assume that *eat* is 'intransitive' in this construction, when it is the very transitivity of this verb that *explains* the existential interpretation when the internal argument is dropped. She is also right that *rain* always lacks the existential interpretation (*ibid.*), and the fact just noted immediately explains this fact as well, since there is no independent evidence for any internal argument in *rain*, which unlike *eat* is never transitive. So she is wrong to derive the lack of this interpretation from an 'obligatory location argument', given that no such extra structure is needed and the facts follow for free from the grammar.

5. The Lexical and Grammatical Determination of Temporal Relations

The source of the dispute, I now submit, relates to a key difference in the fixation of linguistic content noted in Section 3: Although (8) and (9) both encode time and space, how time and space are encoded *grammatically* in (8) is very different from how they are encoded *lexically*, through adjuncts, in (9), making the latter in fact *unsuitable* to express what thought (8), by itself, serves to encode. Note, to begin with, that one cannot make an assertion yesterday, for example (or at some time or other). One can only assert, now, what was the case then. In a similar way, an assertion cannot be made elsewhere, like in China. I will here refer to the time and location of a speech event technically as the *Here* and *Now* of speech, crucially with no implication that they are the meanings of the actual *words* 'here' and 'now'. Indeed the Here and Now of speech are intrinsic or 'inalienable' aspects of it, irrespective of its lexical specifications: an utterance is a physical event that takes place in space and time, and ipso facto it will, as witnessed online, have specific temporal and spatial coordinates. If no explicit temporal or spatial predicate (e.g. *yesterday*, *in China*) is overtly present that *shifts* reference, temporal and spatial reference is to the Here and Now; if there is one, what is asserted to be true is still of necessity true *now*, in the speech time. If we wish to make a claim about what was true *then*, there is no other way than to make a claim to the effect that in relation to the speech time, i.e. now, there is an earlier time, at which a certain predicate held (e.g. *John walked*).

Whatever other times and places are referenced in an utterance, in short, they are determined in *relation* to the Here and Now of speech. This relation, involving specific deictic reference to the Now of speech, is what grammatical Tense (e.g. *-ed*) in particular encodes. Establishing the temporal relation in question through Tense is grammatically obligatory in declarative main clauses in a language such as English. It is thus a condition on completing the grammatical process and *always* present—never hidden—when this process is complete. Where grammatical Tense is *not* overtly present, as for example in the verb-less small clause (SC) in (10) below, the time of the 'event' of John's being stupid is interpreted with reference to the Tense that *is* explicitly encoded in this expression, namely the overt Tense-marking (i.e. PRESENT) on the matrix verb 'consider-*s*', whose present-tense inflectional affix encodes temporal coincidence with the point of speech. The time of John's stupidity is therefore *co-located* with the event of Bill's considering, which in turn takes place *as* the utterance does:

(10) Bill considers [SC me stupid]

Where something is claimed about me in 'reality mode', on the other hand, rather than as part of a report, demands are higher and the event time of my being stupid and the speech time have to be related *directly*. The main clause (11), which is tenseless, is for this reason out, by contrast to (12), which is finitely tensed:

(11) *Me stupid.
(12) I am stupid.

Some main clauses on the other hand *are* grammatical in the absence of grammatical Tense. However, these arguably *lack* a propositional character: (13), used in self-talk in front of a mirror, arguably does not mean the same as (14) (Potts and Roeper, 2006):

(13) You idiot!
(14) You are an idiot.

In sum, where a truth is claimed, grammar makes the specification of the temporal relations between event time and speech time obligatory, and where Tense is missing in a clause, no propositional claim of truth is made. Moreover, any temporal point of reference in speech is established in relation to the Here and Now of the speech event, as witnessed by the interlocutor, and these are inalienable properties of the speech event relative to which reference is displaced, if extra temporal or spatial predicates are present. None of this holds with regards to how the *lexicon* establishes temporal relations. The temporal adverb 'now' in (15) also specifies a temporal relation (a relation between the property of it's being 3 o'clock and the time of the speech event) but it is of course not grammatically required, as the fact shows that it can be dropped, preserving grammaticality:

(15) It's 3 o'clock now.

An optional element such as 'now' in (15) thus *cannot* have the same role as the Now of speech, which is inalienably present in the speech act and with which the grammar obligatorily establishes temporal relations in the system of grammatical Tense. Therefore, 'now' in (15) does *not* make a temporal specification 'explicit' that is somehow merely 'inexplicit' in (8), repeated here:

(8) It's 3 o'clock.

For, in terms of its *grammatical* tense, (8) is fully explicit and complete, and nothing is missing. Indeed, the very same *grammatical* specification of Tense is *present* in (9), through the inflection on 'is', in *addition* to what 'now' specifies, and it carries out a different function, as we will see more clearly shortly. That 'now' is *not* then 'missing' in (8)—in whatever sense it might be missing—explains why (15) can perfectly answer the question in (16), while (8) *cannot*:

(16) When is it 3 o'clock?

By contrast, (8) can perfectly well answer the question in (17), while (15) cannot:

(17) Is it 3 o'clock?

Similarly, (15) can correct the claim in (18), whereas (8) *cannot*:

(18) It was 3 o'clock then.

And when (15) is negated ('it's not 3 o'clock now'), this leaves the question open of when and whether it's 3 o'clock, i.e. whether (8) is also false (it may not be

3 o'clock here and now, but in China, now; or it may be 3 o'clock only in 45 seconds). If (8) had 'now' as a hidden constituent in either its underlying syntactic structure or else the 'thought' or proposition it encodes, these differences would not be expected. Nor does or can 'now' replace the way temporal relations are determined grammatically in (8). Moreover, as noted, this *grammatical* specification is equally present in both (8) and (15), unaffected by the addition of the adverb, and it has a different function, which the temporal adverb cannot affect. To see this more clearly, note that one can correct an utterance like (15), but not (8), by (19):

(19) No, it's 3 o'clock then.

In (19), the grammatical specification of Tense, encoding a relation of coincidence between the state of the temporal property holding and the speech event, is identically present as in (8) or (15). (19) is about a certain event or state of affairs, which consists of a certain property holding—the property of it's being 3 o'clock. Its grammatical Tense locates this very event/state as coinciding with the point of speech that the interlocutor witnesses 'online'. The event/state is then modified by a further predicate 'then', and the whole property, of the event/state holding then, is then said to hold as the speech event takes place. This is the grammatical meaning of (19). (15), in turn, claims, of the event of the property of its being 3 o'clock holding, that it takes place now. It is clear, therefore, that the extra predicate 'now' is not missing in (8), which claims no such thing as what (15) claims, and that it cannot be added without distorting its meaning. The difference relates to the different ways in which the grammar and the lexicon establish temporal reference.[13]

This brings us back full circle: the lexicon, we saw in Section 3, provides substantive lexical contents, but it cannot establish the different forms of reference. As the evidence there suggested, not even *phrasal* grammar is enough: sentential grammar is needed. We have now seen the analogous difference in regards to how grammar establishes temporal relations, either through grammatical Tense on verbs or else through temporal adjuncts with additional lexical specifications. The former helps with reference, the latter provide further descriptive *predicates*, which function so as to ascribe temporal properties to specified properties or events that are *already* anchored grammatically in space and time. Grammar is not there to provide *more* descriptive properties, but to establish the forms of reference needed for propositional completeness. Consider in this regard, and for future reference, how 'I' and 'me', respectively, function grammatically in (20):

(20) I am me.

[13] A referee raises the case of *You're not going to die*. But it is not different. A person asserting this sentence is precisely not asserting *You're not going to die, ever*, which is a different, and more specific, assertion, with a different propositional content, which entails the other. A doctor asserting *You are not going to die* is asserting, about the Here and Now of speech, that the patient is not going to die in that Here and Now, which is the correct result, in the absence of hidden variables.

(20) means that I simply am the person I am. Grammar obligatorily creates an asymmetry in this case between the two pronouns, which is marked in the morphology through Case. (21) would be ill-formed in this context, as would be (22):

(21) *I am I.
(22) *Me is I.

This *grammatical* difference brings it about that 'me' in (20) functions as a descriptive predicate (denoting the property of whatever it is to be me), with a minimal lexical content that context needs to supplement, whereas 'I' is in a referential position. This difference has nothing to do with the lexicon. This is analogous to *-ed* functioning *referentially* and deictically, while a temporal adjunct with lexical content such as 'in the past' will always function *predicatively*.

I conclude that Fodor's evidence that linguistic utterances are often 'inexplicit' in regards to constituent parts that the thoughts conveyed by them contain, stands without empirical support. It overlooks the ways in which temporal relations are established by the grammar and the lexicon of a language in different ways, and that it is in fact a *requirement on grammaticality*—for having a well-formed utterance—that these relations, insofar as they are grammatical, are *fully specified*. Further lexical specifications added in the form of adjuncts are no substitute for such specifications, and they change the thought expressed when added, whereas the actual grammar of the sentence aligns with the exact thought expressed.[14]

6. Spatial Completeness

Grammar not only requires determining temporal relations to the Now of speech, but spatial relations to the Here of speech as well. Interjections do not require this, as reference is never shifted in them: reference is ipso facto to the speaker and his current personal experience. The moment reference is to other things, grammar marks this in the system of grammatical person, as when reference is to a 'you' as opposed to the 'I', or an 'it/he' as opposed to both a 'you' and the 'I'. Again, however, whatever object ('it') is located as distinct from the speaker, it is located with *reference to him*: objects are said to be 'here' or 'there', 'near' or 'far', 'this man' or 'that man', 3rd person or 2nd person, etc., in *relation* to the speaker viewed as a 1st person and 'deictic centre' (Bühler, 1934). No utterance is ever without a location, and no utterance is grammatical or complete in the context in which it is uttered if an object is referred to *without* appropriately locating it in the speaker's deictic space and specifying it for grammatical person. *That man is hungry* is ungrammatical when

[14] From this point of view, locating meaning at a posited non-linguistic level of 'thought', where it would be fixed by other (and unspecified) principles, would seem to deprive us of the very tools that we have now seen establish forms of reference and predication in human linguistic communication and the thoughts we convey in it (see Hinzen and Sheehan, 2013).

used by a speaker to mean *I am hungry*, because the NP in the former expression has a distal feature and lacks the 1st person feature; the same is true for *The speaker is hungry* if used to mean the same thing: it, too, is of the wrong grammatical person and does not convey what *I am hungry* conveys. In English, 3rd person demonstrative reference requires a speaker to make a further choice between demonstratives with the proximal and the distal feature ('this' = the + here versus 'that' = the + there). Definite reference with 'the' in turn requires a choice of complement NP that is sufficient in terms of the richness of its descriptive content in order to localize the referent intended by the speaker in the deictic space of possible reference shared between him and the hearer. Even my utterance of *John loves Mary* needs to be properly embedded in the speaker's deictic space: I know many Johns and many Marys, and to whom I refer will co-vary with the time and location at which my act of reference takes place.

Reference to people and things in space thus is and needs to be grammatically fixated in the right way as much as temporal reference does.[15] How spatial information could be 'missing' or 'hidden' in an otherwise grammatical utterance is as hard to see as how temporal information could be missing. On the other hand, many utterances in many languages do not have much by way of referential expressions or deictic devices, and here the problem arises. Thus consider (24), below, in light of Neale's 'Underarticulation Thesis' (UT) in (23):

(23) 'What a speaker says (the proposition he expresses) by uttering an unambiguous, declarative sentence **Φ** on a given occasion is underarticulated by **Φ**'s syntax, the meanings of the morphemes in **Φ**, the prosodic features of **Φ**, the references to any referring expressions in **Φ** (including those of an indexical nature), and the specifications of all anaphoric links' (Neale, 2007, p. 2).

(24) It's raining.

As Perry famously claimed, a hidden location constituent has to be posited as part of the propositional meaning of (24): '[The location] is a constituent, because, since rain occurs at a time in a place, there is no truth-evaluable proposition unless a place is supplied. It is unarticulated, because there is no morpheme that designates that place (Perry, 1998, p. 9) As Neale (2007) similarly explains: raining 'is a binary relation between a time and a place'; '[i]t doesn't just rain. […]. It rains at a time, in a place' (Neale, 2007, p. 4). The suggestion thus is that a place must be an 'unarticulated constituent' of the proposition expressed by the speaker who utters the sentence (24). It is also what would satisfy a 'hidden variable' in the 'logical form' of (24) on the 'semantic' view, or what saturates a non-linguistic proposition on a non-semantic

[15] It is another instance of grammatical meaning in the sense of Section 3, for it is not merely semantic: the exact same object—for example, me—could semantically saturate 'that man', 'the speaker', 'man', or 'I'. But these are four grammatically distinct ways of referring to me, of which only one is grammatical when I refer to me (irony and theatrical effects aside).

view. According to Marti (2006), too, a hidden variable is obligatorily present in 'logical form' as a syntactic argument, despite the fact that there is no syntactic way for this to be so (cf. Collins, 2007, p. 832).

We don't have to decide, however, on these various options, for nothing is in fact hidden or under-articulated, even here. If we respect that the grammar obligatorily establishes temporal and spatial relations, and we add our notion of grammatical meaning to Neale's list of features of an utterance in (23) above (where it is characteristically missing), the 'underarticulation' claim again fails: (24) will *always* be saturated by the Here and Now of speech. (24) as uttered in a speech act is true just in case it's true in the Here and Now of the speech situation that it's raining there and then, where the Here and Now are not specified lexically or through adjuncts, but grammatically, through grammatical Tense, deictic and descriptive elements in nominal reference, and the occurrence of the speech event as witnessed online itself. Note that temporal reference, which is specified at the verbal and clausal level, necessarily *entails* spatial reference as specified in the noun phrases that necessarily are *parts* of verbs and clauses.[16] It is true of course that 'it' in (24) does not *have* much descriptive and deictic content, but then it also *need* not, since it has no independent reference and serves grammatically to make a predicative phrase propositionally complete. Moreover, being 3rd person singular grammatically, 'it' is not *completely* free of feature specifications either. These grammatical facts align with what content (24) carries, and there is again nothing incomplete about it.

Just as temporal *reference* to an event as taking place contemporaneously with the point of speech is not the same as *describing* it as taking place 'now', or deictic *reference* to me with 'I' is not the same as *describing* me as being 'me' (cf. 20), spatial *reference* to an object or place relative to the location of speech is not the same as *describing* this place as falling under some lexical predicates such as 'in Palo Alto' or 'here'. No addition of such predicates preserves meaning, and it would correspond to another thought: the description of an event changes the thought we have about it. Nor does it make sense to say that such predicates, if not explicitly added, need to be 'saturated' by the context, as non-grammatically identified. In particular, while it holds irrespective of any speech act whether or not some particular place falls under the predicate 'in Palo Alto', the Here of an utterance is defined in part through the utterance's occurring in this context itself. The Here is established *in relation to the speech act*, as, when and where it takes place, and fixating spatial relation *grammatically*, without the help of additional descriptive predicates, and through the speech act itself, is different from a location saturating descriptive predicates specified in an utterance.[17]

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[16] There is also evidence that mental representations of time are asymmetrically dependent on mental representations of space (Casasanto *et al.*, 2010); and the organization of grammar reflects this fact: in matrix clauses, verbal phrases asymmetrically embed nominal ones, and while nominal phrases establish spatial reference ('that man'), they cannot encode finite Tense.

[17] Recently arriving in my doctor's surgery, I hear that his daughter has had an accident and he won't be in today. A moment later he walks through the door, stone-faced. 'Oh,' I say, 'I was

It is because the truth conditions stated above for (24) are what they are, they do not exclude that I utter (24) while looking with you in Paris at a live recording of events in Hong Kong on a screen. As said in the previous paragraph, this utterance event co-defines what counts as the context of this utterance, in which its propositional content is asserted. So we need to witness the utterance in order to identify the context correctly. The context identified, in this case, involves the application of the descriptive predicate 'rain' to a situation perceptually presented to speaker and hearer. The predicate picks out Hong Kong rain for this reason. The same predicate is then aspectually modified as progressing in relation to the event of speech and finitely tensed, again in relation to the time of the speech event. There is no descriptive predicate 'here' involved, no such predicate therefore needs to be equated with the predicate 'in Hong Kong', and there is no such thing as a constituent 'in Hong Kong'. Rather, the correct interpretation is obtained by the hearer if he or she witnesses the utterance, and an incorrect interpretation would likely be obtained by a person in the next room, who had merely overheard the utterance.[18]

My thought, in short, can exactly be the thought that it's raining in the Here and Now, with no hidden structure required, because the Here and Now of the utterance, as determined by the utterance itself, will necessarily provide the information we need. If they don't (as when a hearer is overhearing the utterance in the next room), a further predicate would be required. In the case above, it is *de facto* not, and if it is added, the thought is not the same. It will rather be the one expressed by the utterances 'it's raining *in Hong Kong*' or 'it's raining *there*', the latter of which expresses the thought that, in the Here and Now of speech (where for example it may not rain), it rains *there* (i.e. elsewhere). This is a different thought from the one expressed in (24), because in addition to establishing reference to the location of

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just told that you were not here now.' He answers: 'Yes, I am absolutely not here now.' This is an assertion about a certain event, which we can characterize as his being in the office at this time. It is anchored *grammatically* in the Here and Now of the utterance event as and when it takes place. The grammatical meaning is: it is here and now the case that a certain event *described as his being here now*, does *not obtain*. The intended claim is: what you are witnessing should *not* be *described* in the terms of the descriptive predicates used (he is not really there). It is the difference between the grammatical and lexical fixation of time that makes his statement interpretable. Crucially, no notion of 'non-literal' meaning has been invoked here.

[18] The 'standard view' of such a case would be that 'in Hong Kong' is a hidden constituent of the thought expressed (whether as an unarticulated constituent, or a hidden indexical saturated by context). However, no such substantive assumption is *needed* if the truth conditions are as stated above. Nor is there any need to involve the city of Hong Kong itself, as located in East Asia. Instead, (24) is simply true iff it's raining in the Here and Now of speech, where these are not hidden predicates descriptive of a location, but fixed as, when, and where the speech act takes place, and in virtue of its taking place. In this speech act, the temporal specifications (Aspect and finite Tense) of the expression deictically anchor the propositional content and that of the single descriptive predicate involved, namely 'rain', relative to that very act. This anchoring does not depend on speaker-independent and speech act-independent facts about which places or objects saturate other descriptive predicates than the single one that is present, such as 'in Paris' or 'in Hong Kong', the addition of which changes the thought.

speech *grammatically*, they invoke a further relation between an event and a location, as described with a further lexical predicate. The way (24) fixes the relation between the event and the location is through the speech act and the grammatical specifications that localize the time and place of the referenced event in relation to the time and place of the speech event.

Analogously, I could utter (24) as a response to the task of telling whether it rains, based on evidence obtained from some rain detector placed in an unknown location (Récanati, 2007). The truth conditions again remain the same. (24) will still mean that it is raining in the Here and Now—as, when and where the utterance takes place—with the location of the utterance determined as the utterance is witnessed, without any hidden descriptive predicate involved. To utter *It's raining here*, in this instance, would be as misleading as the assertion *It's raining somewhere*, showing again that the predicative specification of a location is different from the grammatical fixation of the Here of speech, through the speech event itself. In particular, in the rain detector case where I utter 'it's raining!', speaking in Paris, the different utterance *It's raining here* could then well be heard as being misleading or false, even when (24) is true.[19] *It's raining somewhere* doesn't capture the content of (24) either, as used in this case, since it contains a quantifier over locations and by consequence changes the deictic structure of the utterance in much the way that 'somebody spoke' does in relation to 'he spoke'. Here again, the introduction of the quantifying expression changes the deictic structure of the utterance. *It's raining somewhere* is not false in this case, but an asymmetric entailment of the statement 'it's raining' (again as in the case of 'somebody spoke'). Temporal and spatial reference, insofar as they are grammatically determined, are both always specific and never merely existential. In this sense there are no so-called 'location-neutral' readings, any more than grammar allows an utterance to be free of grammatical Tense and hence unanchored in time. Marti (2006) is therefore right that (24) cannot have an existential reading that leaves the location indefinite and merely existentially quantified, but wrong to account for this fact by positing an obligatory syntactic argument in 'logical form', which is nowhere to be seen, unexpected, unneeded, and meaning-changing when explicitly added.

If an utterance of (24) really could express the thought that it is raining in Paris, which rather the sentence (25) below expresses, laws of grammar would be violated—the same laws that forbid that *John killed Bill* could mean *John killed Bill voluntarily*, say:

(25) It's raining in Paris.

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[19] Note that where the word 'here' *is* present, the question 'here - where?' by an interlocutor can arise. The interlocutor might wonder whether 'here' = 'Hong Kong' or 'here'='Paris', say. Note, by contrast, that nobody could react with the utterance 'Here—where?' to the sentence 'It's raining'. Why this difference? Plainly because, in this latter case, no location is being described and identified through a descriptive predicate such as 'here'. Instead, time and location are fixed only grammatically, and through the utterance itself. If the utterance is witnessed fully, normally no such question will arise. There is, for the same reason, normally no such question as 'who is I?', posed by your interlocutor after you have said to him: 'I am hungry'.

But they don't seem to be violated. The thought in question does crucially *not* have the truth-conditions of (24), even if (24) is uttered in Paris, as we just saw. As (24) is uttered, it expresses a thought that is about rain in the Here and Now of speech, as and where that speech event takes place. (25) by contrast is about an event described as *raining in Paris*, equally taking place as the utterance does. There is no need for this second event to figure in the thought expressed in (24), when the former event of *raining* suffices. Again, if intensionality is a hallmark of (human) thought, how events are described plays a role for which thoughts we wish to ascribe to speakers that refer to them, and hence for which attitude reports we take to be true.

Nothing then may force us to ever depart from the 'minimal semantics' of (24) as stated above, which is both complete and propositional, in a way that exactly aligns with the facts of grammar. Perry's claim that 'there is no truth-evaluable proposition unless a place is supplied' is accurate in one sense but misleading in another. One kind of place *is* indeed required, but it is also necessarily *present* as long as we have a well-formed utterance at all: the Here of the speech situation as the utterance takes place and as grammatical constraints on how objects of reference are located in the deictic space of the speaker are satisfied. Another place, as specified through a description mediated by additional lexical material, is not required, and where it is absent in an otherwise grammatical expression, adding a description distorts the meaning. No hidden constituents are called for, whether induced by semantics, pragmatics, or metaphysically present.

With regards to *rain*, we could have taken our clues from grammar, and nothing would have gone wrong. This verb is not transitive in the way that *eat* is and *dance* may be as well, if Hale and Keyser (2002) are right that the latter has an internal thematic argument (making it similar to *he did a dance*). We then predict that (i) any second argument of *rain* would need to be, in fact, an adjunct rather than an argument, as it is in (25); that (ii) there are no existential readings where such an adjunct is absent; and that (iii) such existential readings arise for *dance* with regards to its internal thematic argument, but no location argument, which we argue is missing in this case as well. And indeed: whoever danced, danced *some dance*. But *where* he did so may not be specified, and does not *need* to be specified, beyond the Here of speech, which is never merely existential. In this regard, Récanati (2007, p. 128) perceives a disanalogy between *dance* and *arrive*: while the latter requires saturation through a location, he argues, and is incomplete without it, the former does not. This disanalogy is *not* predicted from grammar, since *arrive* grammatically lacks a location argument as much as *dance* does. But fortunately for us, Récanati's evidence is also rather weak. It is that while one can truthfully assert that Joanna has been dancing, without any idea as to where this happened, with *arrive* this is not possible. In short, (26) has no so-called 'location-indeterminate' reading:

(26) John has arrived.

However, as Kneer (2009) points out, it is entirely appropriate for me to shout out (26) upon learning that John has arrived, without any idea whatsoever of how to describe the location of his arrival, *except* for the fact that it's where he uttered

(26). Suppose that John, whom I expect for Christmas in New York, left both his arrival time and place vague. Calling from some airport on his mobile, I just hear him saying 'I'm there!', or perhaps 'I have arrived', before the line dies. I say to my wife: 'John has arrived. But I have not the slightest idea where'. Even John himself might have had no idea where he arrived, i.e. of how to describe it informatively (the plane might have been re-directed). But I am not then irrationally confused, in the sense that I doubt that he arrived in whatever definite location his utterance took place. Récanati's disanalogy is therefore absent, as we would predict from the grammatical facts: all that (26) says and means is that John arrived at the time and location of speech. It is for this reason usable in a situation where neither speaker nor hearer can give any particular informative *description* of the location in question, specific though it necessarily is. And since one can only arrive at the very location in which one truly utters (26) if it's also true that one arrived *somewhere*, (26) is consistent with adding an adjunct clause: *but I have no idea where*. A speaker who says that doesn't take himself not to have arrived in a particular location, and *I arrived somewhere* is crucially not what someone *says* who utters: *I arrived*.

Unarticulated or otherwise hidden constituents, then, are not 'missing'. They are not there, and nothing that needs explaining is to be explained through them. The meaning of utterances is governed by two things: the lexicon and the grammar, which govern different aspects of meaning in different ways. The grammar requires temporal and spatial reference in any propositional claim, and when the grammar has completed its operations, the propositional meaning is there. Further description of the event that is a part of any such proposition can of course always be given: this is the rationale for adjuncts in grammar. If made explicit, the propositional meaning can be seen to change, in systematic and compositional ways. Whether made explicit or not, the proposition grammatically encoded is not affected. Where there is no evidence in grammar for hidden constituents, in short, we should assume they are not there. The only hidden constituents are those that the grammar generates, and which can then delete in phonological form under specific conditions. These are never adjuncts; and if they are arguments, these arguments, being obligatory, are still there in the syntax, and are quantified off existentially when no lexical item is present that names them.[20]

[20] Earlier (fn. 3) we noted that the sentence *Every time John lights a cigarette, it rains* could mean that whenever John lights a cigarette, it rains in the location where the speaker is uttering this sentence; and even a reading with a location variable bound is not evidence for such a variable in *It rains*. As just observed in the text, the prepositional adverb *in Paris* is not required grammatically or semantically in *It rains* either, which suggests that a 'location variable' would not have the position of a syntactic argument, as which it would be obligatorily present, comparable to the case of *eat*, triggering an existential interpretation when it is absent. As an adjunct, on the other hand, it cannot be obligatorily present in logical form or mandated by syntax, predicting that even in the former example there is no such variable or binding of it: nothing is said about where it rains. As already noted, the very idea of optional processes at logical form (Marti, 2006;

7. Definite Descriptions, Deferred Reference and Sub-Sentential Speech

The pragmatics of definite descriptions is another paradigm case commonly taken to illustrate the misalignment between grammar and meaning that I here dispute. Fodor (2001) argues that even if utterances as compositionally construed were taken to specify a certain thought wholly, they would often not determine the thought they 'conventionally express'. Thus, Fodor (2001, p. 13) points out that (27) does not usually conventionally express the thought that Russell's semantic analysis of 'the' tells us they express, i.e. (28):

(27) The book is on the table
(28) There is one and exactly one book and one and exactly one table, and the former is on the latter.

Indeed, (27) is entirely consistent with there in fact being several books on the table—as long as a contextually salient book has been isolated which 'the book' can pick up. Therefore, Fodor concludes, the complete meaning of (27), *even if it has one*, is not what the sentence as used in discourse expresses. But of course, it is equally possible to construe this finding as evidence *against* the Russellian analysis, i.e. the correctness of the claim that the meaning of (28) is the one determined by the linguistic form of (27); or against the claim that the referential use of definite descriptions is part of 'pragmatics', rather than semantics. Maybe definite descriptions have Russellian readings, but maybe they have referential ones, too, in both cases for grammatical reasons.

It may seem unfair to take Fodor's claim to be that the *English expression* (28) has the meaning that the expression (27) expresses. From the semanticist's point of view, (28) is a rendering, in English, of a predicate-logical *formula*, which the philosophical logician, not the syntactician, ascribes to the expression (27). But herein lies the problem, in the present discussion: we don't merely want to be offered 'semantic representations', but to test independent *support* for these. That (28) should have or represent the meaning of (27) is, from a grammatical (as opposed to logical or semantical) point of view, again very surprising. There is Mukherji's (2010, p. 112) worry that (27) cannot answer the question *How many books are on the table?*, whereas (28) is perfectly appropriate to answer this question; (28), moreover, is ill-formed as an answer to the question *Which object is on the table?*, whereas (27) appropriately answers this very question. There is also the more general worry that identity of meaning is never a relation that connects two *different* expressions of any human language.[21] Whatever the metaphysical and

Stanley, 2005, p. 245) causes theoretical problems given the conception of narrow syntax as a mechanical and 'blind' process that cannot make 'choices'.

[21] Thus, there was a time when active-passive pairs were taken to 'express the same proposition', until it became clear that, in general, even these don't. Famously, *Many arrows didn't hit the target*

epistemological support for the Russellian analysis of definite descriptions may be, it is certainly not supported by *grammatical* considerations. (27) and (28) contain different sets of lexical items as well as syntactic constituents and relations, essentially ruling out the claim that if they really are equivalent at some 'semantic' level, this will hold syntactically as well—and hence failing to provide support at this level for Fodor's empirical psychological claim that the thought expressed in a use of the former really is the thought expressed by the latter. Whatever relation connects (27) and (28), it is not a derivational one, and it is not clear which mind-internal algorithm might carry us from the first to the second, leaving the putative semantic proposition hanging in the air: if and to the extent that its semantic representation is correct, we do not know how it is generated. If (28) cannot be the logical form of (27) in any empirical syntactic sense, it will hold, if it holds, *purely* on the basis of semantic intuitions, failing to provide the needed independent support for them.[22] An equivalence maintained purely at a 'semantic' level, unaccompanied by any syntactic evidence, requires strong support as it entails a worst-case scenario for the grammar-meaning interface that we should only endorse as a last resort.

A closer look at the grammar of definite descriptions, in fact, yields the opposite conclusion, failing to support such misalignment and the characterization of referential uses as 'pragmatic' or unlicensed by linguistic form. As Longobardi (1994; 2005) classically argues, if one splits nominal reference into two classes, object-referential and quantified/variable, the grammar of both types of nominal reference is different in principled ways, apparently universally. A schematic representation of the structure of the nominal phrase is (29), which consists of an 'interior' containing the lexical projection of the phrase (NP), and an 'edge' containing the functional projection (determiner, projecting into a DP):

(29) $[_{DP}$ edge $[_{NP}$ interior]]

A paradigmatically quantified reading (e.g. as in indefinites or mass-quantified nouns) is syntactically derived by leaving the edge either empty (mass-quantification, as in *I had [Ø meat]*) or else having it filled by a 'weak' lexical determiner such as 'a' or 'some':

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and *The target wasn't hit by many arrows* are not truth-conditionally equivalent. 'John seems happy' may seem close to 'It seems that John is happy', but even here semantic differences transpire, which come out clearer in 'I seem happy' versus 'It seems that I am happy'. Synonymy may exist *lexically*, in some technical extensional sense, but is problematic in any intensional sense even there. Clark's (1992, p. 64) Principle of Contrast ('Speakers take every difference in form to mark a difference in meaning.') seems to be a general principle governing the organization and acquisition of the lexicon.

[22] The logical form, in the syntactic sense, of one expression *E* is never the one of a different one, *E'*, but lies at the end of a derivation driven by independently given and motivated syntactic operations that necessarily depart from all and only the lexical items feeding into the generation of *E*.

(30) $[_{DP}\ \emptyset\ [_{NP}$ interior]]

By contrast, in the case of proper names, which are object-referential in their most paradigmatic uses, we have the reverse case: only the edge is filled, while the interior is vacated through N-to-D movement:

(31) $[_{DP}$ Tom $[_{NP} \varnothing$]]

This leaves the case of definite descriptions (and pronouns, which I will omit here for reasons for space). These have for a century had an intermediate status: intuitions have been perennially wavering as to whether these are referential or quantified expressions, with a broad consensus now existing that definite descriptions at least have referential *uses*, with their referents entering truth conditions (e.g. Bezuidenhout, 1997; Larson and Segal, 1995), even if their literal semantics is Russellian on the lines of (28) above. Hall (2008, p. 436) uses the combination of these views to argue that referential uses of definite descriptions argue in favour of the *pragmatist's* answer to the contextualist challenge: they cannot be traced to 'logical form', as King and Stanley (2005, p. 130) acknowledge, being pragmatic effects due to 'referential intentions'. However, looking at the matter from a grammatical point of view, the explanatory question to raise is: *why* do definite descriptions have referential uses, while at the same time supporting the semantic intuitions yielding a Russellian quantificational analysis? The above account holds the key to a simple answer. No descriptions can be referential without the edge being filled through a strong determiner such as 'the' or 'this'. In this sense, definite descriptions are 'edge-heavy', in much the way that proper names are. At the same time, unlike proper names, definite descriptions, obligatorily, and demonstrative descriptions, optionally, have their 'interior' filled by a nominal restriction, just as quantificationally interpreted nominals:

(32) $[_{DP}$ the $[_{NP}$ man]]

Hence they have an intermediate status grammatically, and from this we would predict what we find: that they can be *both* quantificational and referential in their use. This conclusion arises independently of semantic considerations, on a grammatical path, with syntactic and cross-linguistic evidence (Sheehan and Hinzen, 2011, where the account is argued to extend to referential and non-referential uses of clauses). If so it follows that the three classes of nominals correspond to exactly three kinds of possible configurations in the determiner phrase, corresponding to quantified noun phrases, definite descriptions/pronouns, and proper names, respectively. This once again continues our initial theme in Section 3: grammar governs the forms of *reference*. In this domain, grammar and meaning strictly align. Hall (2008), therefore, can derive no support for the pragmatist side of the contextualism debate from referential uses of definite descriptions. But neither can the semanticist, for the reasons that Hall gives. What is missing in either side is a principled account of

the grammar-meaning interface, from which, if the above is right, it follows that the available forms of reference in the nominal domain (and arguably, the clausal) are what they are and that they are governed by grammar, with no involvement of context or pragmatic enrichment, and no semantic enrichment or hidden indexicals either.

The same approach eliminates the problem of *deferred* reference, which Stanley recognizes as a problem for the logical form approach, and Hall (2008) takes to be strong support for the pragmatist process of free enrichment. As Hall (2008, p. 427) formulates the problem, it is that (33) has the truth conditions of (34), which I take to be an empirical claim:

(33) The ham sandwich wants his bill.
(34) The customer who ordered a ham sandwich wants his bill.

These data are taken to support the view that deferred meaning as in (33) is both different from encoded meaning and affects truth conditions. Both pragmatists (Récanati, 2004; Carston, 2002), and semanticists (Stanley, 2005) acknowledge this, along with the fact that metonymy is an essentially pragmatic and optional process. Stanley (2005, pp. 129–32) discusses a possible solution, which Hall (2008, pp. 434–5) convincingly attacks. Yet again, the perspective from the grammar-meaning interface suggests a novel option, which dissolves the problem and locates the influence of context at one specific junction. Specifically, the above three-fold analysis of nominal reference makes the following predictions: 'the ham sandwich' is a definite description, hence an 'edge-heavy' DP that has a descriptive predicate encoded in its 'interior':

(35) $[_{DP}$ the $[_{NP}$ ham sandwich]

Hence it is expected to show the same hybrid behaviour, with both referential and predicative/quantificational features to its meaning, since both the edge and the interior can influence or be exploited in its use. Where the referential option is chosen, the content of the NP in the interior provides an identifying predicate that guides the determination of the referent at the edge of the phrase, on the basis of the descriptive information it encodes. Once the referent is determined, the identifying description will have done its job and the referent is the referent it is, irrespective of how it was identified. The description is thus discarded for purposes of further reference, and a person might reply to (33): 'Oh, he didn't order a ham sandwich', with 'he' picking out the exact same referent. No problems arise: Not a ham sandwich is referenced, but a man. Choosing an identifying description to establish a referent is not the same as saying, of this referent, that it falls under the description—two acts that involve a very different grammar. (33) therefore expresses a different proposition from *This is a ham sandwich and he wants the bill*, and (34), too, *mischaracterizes* the thought expressed, since it involves a predication, of the referent, that he ordered a ham sandwich, thus postulating a commitment to this fact on the side of the speaker, which he may well

not want to shoulder.[23] Context or pragmatics enter only into the *choice of the description*: this is nothing that grammar or the lexicon of the language governs, and there are no prescriptions for how to pick out a referent, or on the basis of which aspect. A ham sandwich in a stomach can do the job. As long as we get the referent right, we might pick him out on the basis of his odour. Once the choice is made, and the lexical items are in place, grammar governs the referential use of the phrase, which are as predicted.

In this way referential uses of words exhibit the 'creative aspect': no causal-mechanical model exists for why we choose to say what we do, or what description we pick. We utter words at a speed of several words per second, and in comprehension we process an utterance reflexively, with combinatorial and lexical streams of processing interacting to finally produce the full propositional meaning of an utterance within about half a second (Kuperberg, 2007). Yet while this is a process too fast to be under the rational control of beliefs, in production we *do* tend to know what we say, when we say it, as well as that we say it: there is a correlation between the grammatical process, when and after it is completed, and *consciousness* of the grammatical meanings that we then produce. The unconscious operations of structure-building in grammar and lexical access need to be exactly right for the referential act consciously performed by the speaker or hearer to be what it is and to *match* the thoughts he intends to convey. If the grammar is right, the referential act is performed: at the level of complete sentences, the truth-conditions are fixed and the proposition is complete, providing a basis for implicatures and further reasoning. No other sentence, on this view, and no identifiable 'sentence' in the Language of Thought, if there is one, describes the thought expressed better than what is actually uttered.

Let us in this light look at a final challenge, which has been taken to suggest that meaning as established at the grammar-meaning interface need *not* be propositional and is hence in need of complementation by further structure, whether in logical form or in extra-linguistic representations (Stainton, 2006). (36) in particular is taken to support the view that in many utterances that we find natural, full propositions are in fact expressed, although nothing in the linguistic structure of the utterance indicates the presence of constituents that have to be added in order to make the propositions in question complete:

[23] Récanati (2004, pp. 60–1) notes that a speaker asserting (33) does not assert the 'minimal proposition' that the 'sandwich itself' wants the bill. This serves his argument that propositional content is always pragmatically determined and never merely grammatically. As the above discussion shows to the contrary, in line with Section 2, the fact noted by Recanati in fact follows for free from the grammar of definite descriptions and how they are used to refer, which does not make us *expect* the 'minimal proposition' in question. The propositional claim actually made—that a person identifiable by his descriptive property of having ordered a ham sandwich wants his bill—is *in line* with the grammar.

(36) Nice shirt!
(37) You are wearing a nice shirt.

For Hall (2008, p. 427), the proposition that can be communicated with (36) can be characterized by (37). Again, then, there is a fundamental mismatch between grammar and meaning, or language and thought—a messy interface rather than a perfect one. Propositionality, in particular, will not now have a specific grammatical signature. Propositions at a level of 'thought' can exist on this view, even if the mapping from grammar to thoughts is many to one. In the literature, we again find 'semantic' and 'pragmatic' solutions to this problem. The pragmatist finds these cases to provide support for unarticulated constituents or the power of context over linguistic form (Stainton, 2006); the semanticist argues that (36) must be sentential in disguise, with the relevant syntax in place covertly (Stanley, 2000; Merchant, 2004). How do we resolve this debate? Assuming a strict interface between grammar and meaning offers a new solution. On the methodology of grammar-meaning alignment—which should be a default unless misalignment is in evidence—we firstly observe empirically that the grammar of (36) is indeed not that of a propositional configuration: for example, Tense is missing. Nor can (36) be embedded, as (37) can be, giving us the contrast in (38–9):

(38) *I believe that [nice shirt!]
(39) I believe that [you are wearing a nice shirt]

Our present approach, therefore, motivates a prediction, that the *meaning* of (36) should be different as well: it should *not* express a proposition, challenging the claim, which is the basis of the discussion, that (36) expresses the proposition (37). But is there independent evidence that this prediction holds? One piece of such evidence is that the person uttering (36) is paying a compliment—she appraises: she is not making a propositional claim.[24] Of course, these two kinds of acts are not entirely unrelated. One cannot pay a compliment (successfully) without *also* saying something that is conceivably *true* of the person addressed. For this reason, one needs to utter (36), whereas uttering (40) would not be as effective, and (41) might even backfire, as it is merely a propositional comment on what one happens to subjectively feel:

(40) Nice shirt, for me!
(41) I find this a nice shirt.

Truth is key, then. Nonetheless, no propositional claim is made. And thus we predict what we find: that (36) is a hybrid. Grammatically, a predication *is* involved in one sense—'nice' is predicated of 'shirt'—but making a fully propositional claim such as (37) would only express a proposition, and *not* the thought expressed by (36). It

[24] In other cases that Stainton (2006) discusses, no such appraisal is involved. Yet it is unclear even in these cases *which* proposition exactly the fragment is semantically equivalent to.

would involve a wrong affect (note that (36) is ungrammatical without the exclamation mark: *Nice shirt). Grammatically, therefore, (36) does not take the form of (37), but where no propositionality is intended (though predication is involved, as just noted), the grammar shouldn't be fully propositional either—and it isn't, illustrating alignment. The person wanting to pay a compliment needs to get his grammar exactly right.

8. Conclusions

We have looked at a number of specific and standard cases where a misalignment between grammar and propositional meaning has been claimed. In each of these cases, it has turned out that there were in fact fully determined grammatical meanings available, propositional in character and psychologically plausible. Moreover, supplementing or confronting them with other, non-grammatically determined propositions containing other constituents, resulted in propositions misrepresenting the thoughts expressed in the original utterances as the thoughts expressed by lexically and grammatically different expressions, for example by making them more specific or propositional when they are not, or making them predicative when they are referential. As the evidence base stands, context is powerless to override grammatical meaning, and propositional meaning as grammatically configured is complete, without enrichment. *Pace* Cappelen and Lepore (2007), our alignment claim crucially leaves open—and indeed invites the conclusion—that pervasive and uncontrollable influences of context on the *lexical* specification of meaning in an utterance *will* occur; where grammar is not in control, context takes over.

As the methodology has been empirical rather than conceptual, and indeed inductive, the conclusion of this article involves no blank cheque for new cases. Yet our discussion motivates a new *heuristics*: to take grammar seriously for what it contains and what it doesn't, if we wish to investigate propositionality empirically, and credit lexicon and grammar with crucially different contributions to linguistic content. The notions of 'context' and 'content' are *correlative*: there is one only if there is the other. This requires a cognitive mechanism, or principle, which demarcates one against the other. It is an intriguing generalization from the cases discussed—and a best-case scenario—that grammar, absent in all animal communication systems as noted, *is* that principle. If so, hidden constituents, where they are not independently grammatically licensed, may not be called for: nothing is hidden.

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